



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0807; Product Identifier 2018-NM-003-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Airbus Model A330-200, A330-300, A340-200, and A340-300 series airplanes. This proposed AD was prompted by a report that revealed the wheel axles of the main landing gear (MLG) were machined with a radius as small as 0.4 millimeters and a determination that the life limit for the affected wheel axles of the MLG must be reduced. This proposed AD would require an inspection to determine the part number and serial number of each MLG wheel axle and replacement of affected parts prior to exceeding the reduced life limits. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Airbus SAS, Airworthiness Office – EAL, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 45 80; email: [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet: <http://www.airbus.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0807; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3229.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0807; Product Identifier 2018-NM-003-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

**Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018-0150, dated July 16, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Airbus Model A330-200, A330-300, A340-200, and A340-300 series airplanes. The MCAI states:

In the past, EASA received a report, via Airbus and Messier-Bugatti-Dowty Ltd, from a MRO [Maintenance Repair Organization], concerning a specific repair accomplished on certain MLG wheel axles. Investigations revealed that the axles were machined with a radius as small as 0.4 mm.

This condition, if not corrected, has a detrimental effect on the fatigue lives of these parts, possibly affecting the structural integrity of the aeroplane. Fatigue analyses were performed and the results indicated that the life limit of the affected MLG wheel axles must be reduced to below the one stated in the A330 and A340 Airbus Airworthiness Limitation Section (ALS) Part 1.

To address this potential unsafe condition, EASA issued AD 2011-0170 [which corresponds to FAA AD 2013-08-03, Amendment 39-17420 (78 FR 23105, April 18, 2013) (“AD 2013-08-03”)], which required the replacement of the MLG wheel axles before exceeding the new reduced demonstrated life limit. After that [EASA] AD was issued, it was discovered that additional MLG wheel axles were subject to repairs by the same MRO. Consequently, EASA issued AD 2013-0067, retaining the requirements of EASA AD 2011-0170, which was superseded, and required the replacement of this additional batch of affected MLG wheel axles.

Since EASA AD 2013-0067 was issued, it was reported that two additional MROs have accomplished similar incorrect repairs on additional MLG wheel axles, necessitating implementation of a reduced life limit. The affected MLG wheel axles, as well as the related life limits, have been published in Airbus SB A330-32-3282 and SB A340-32-4311, as applicable to aeroplane type.

Consequently, EASA issued AD 2017-0245, retaining the requirements of EASA AD 2013-0067, which was superseded, to require identification and replacement of the affected MLG wheel axles.

Since EASA AD 2017-0245, it was determined that some aeroplane models were missing from the Tables in Appendix 1 [of EASA AD 2017-0245]. It was also

determined that the compliance times [of EASA AD 2017-0245] needed to be clarified.

For the reasons described above, this [EASA] AD fully retains the requirements of EASA AD 2017-0245, which is superseded, and introduces the necessary clarifications. This [EASA] AD also contains some editorial changes to meet the current [EASA] AD writing standards, without affecting the technical content or requirements.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0807.

### **Relationship Between Proposed AD and AD 2013-08-03**

This NPRM does not propose to supersede AD 2013-08-03. Rather, we have determined that a stand-alone AD would be more appropriate to address the changes in the MCAI. This proposed AD would require an inspection to determine the part number and serial number of each MLG wheel axle and replacement of affected parts prior to exceeding the reduced life limits. Accomplishment of the proposed actions would then terminate all of the requirements of AD 2013-08-03.

### **Related Service Information under 1 CFR part 51**

Airbus has issued Service Bulletin A330-32-3282, Revision 03, including Appendixes 01, 02, and 03, dated October 24, 2017; and Service Bulletin A340-32-4311, Revision 03, including Appendixes 01, 02, and 03, dated October 24, 2017. This service information describes procedures for inspecting the MLG wheel axles to determine the part number and serial number, and replacing the affected MLG wheel axles. This service information also specifies reduced life limits for the affected MLG wheel axles. These documents are distinct since they apply to different airplane models. This service information is reasonably available because the interested parties have access to it

through their normal course of business or by the means identified in the ADDRESSES section.

#### **FAA's Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

#### **Proposed Requirements of this NPRM**

This proposed AD would require accomplishing the actions specified in the service information described previously.

#### **Costs of Compliance**

We estimate that this proposed AD affects 29 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

##### **Estimated costs**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
2 work-hours X \$85 per hour = \$170	\$0	\$170	\$4,930

We estimate the following costs to do any necessary on-condition replacements that would be required based on the results of any required actions. We have no way of determining the number of aircraft that might need these on-condition replacements:

### Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
16 work-hours X \$85 per hour = \$1,360 (per part)	\$40,000 (per part)	\$41,360 (per part)

#### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

## **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.



### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Airbus:** Docket No. FAA-2018-0807; Product Identifier 2018-NM-003-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD affects AD 2013-08-03, Amendment 39-17420 (78 FR 23105, April 18, 2013) (“AD 2013-08-03”).

#### **(c) Applicability**

This AD applies to the Airbus airplanes, certificated in any category, specified in paragraphs (c)(1) through (c)(5) of this AD.

(1) Model A330-201, -202, -203, -223, and -243 airplanes, all manufacturer serial numbers (MSNs), except those on which Airbus Modification 54500 has been embodied in production.

(2) Model A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes, all manufacturer serial numbers, except MSNs 0896, 0905, and 0913 (which are specified in paragraph (c)(3) of this AD), and except those on which Airbus Modification 54500 has been embodied in production.

(3) Model A330-343 airplanes, MSNs 0896, 0905, and 0913, except those on which the actions in Airbus Service Bulletin A330-32-3273 have been embodied in service.

(4) Model A340-211, -212, and -213 airplanes, all manufacturer serial numbers, except those on which Airbus Modification 54500 has been embodied in production.

(5) Model A340-311, -312, and -313 airplanes, all manufacturer serial numbers, except those on which Airbus Modification 54500 has been embodied in production.

**(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing gear.

**(e) Reason**

This AD was prompted by a report that revealed the wheel axles of the main landing gear (MLG) were machined with a radius as small as 0.4 millimeters and a determination that the life limit for the affected wheel axles of the MLG must be reduced. We are issuing this AD to address fatigue of the wheel axles of the MLG, which could result in reduced structural integrity of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Definitions**

(1) For the purpose of this AD, the affected MLG wheel axles are listed by part number and serial number in Appendix 01 (Maintenance Repair Organization (MRO) 1), Appendix 02 (MRO 2), and Appendix 03 (MRO 3) of Airbus Service Bulletin A330-32-

3282, Revision 03, dated October 24, 2017; and Airbus Service Bulletin A340-32-4311, Revision 03, dated October 24, 2017; as applicable.

(2) For the purpose of this AD, a serviceable MLG wheel axle is an affected MLG wheel axle that has not exceeded the applicable post-repair life limit values as specified in table 1 to paragraphs (g)(2), (g)(3), and (i) of this AD, table 2 to paragraphs (g)(2), (g)(3), and (i) of this AD, or table 3 to paragraphs (g)(2), (g)(3), and (i) of this AD; or a part that is not an affected MLG wheel axle.

(3) For the purpose of this AD, the term “post-repair life limits” represents the time-in-service, flight cycles, or flight hours, whichever occurs first, accumulated since repair by the affected MRO specified in table 1 to paragraphs (g)(2), (g)(3), and (i) of this AD, table 2 to paragraphs (g)(2), (g)(3), and (i) of this AD, or table 3 to paragraphs (g)(2), (g)(3), and (i) of this AD.

**Table 1 to paragraphs (g)(2), (g)(3), and (i) of this AD –MRO 1 Post-Repair Life Limits**

<b>Affected Airplane(s)</b>	<b>Weight Variant (WV) (series)</b>	<b>Compliance Time (flight cycles (FC) or flight hours (FH), whichever occurs first, as defined by paragraph (g)(3) of this AD for post-repair life limits)</b>
A340-211, A340-212 and A340-213	WV00x	4,600 FC or 29,000 FH
A340-311, A340-312 and A340-313	WV00x	4,700 FC or 22,250 FH
A340-313	WV02x and WV05x	3,950 FC or 16,900 FH
A330-301, A330-321, A330-322, A330-341, and A330-342	WV00x and WV01x	5,050 FC or 15,200 FH
A330-201, A330-202, A330-203, A330-223, and A330-243	WV02x, WV05x, and WV06x	4,450 FC or 17,900 FH
A330-301, A330-302, A330-303, A330-323, A330-342, and A330-343	WV02x and WV05x	5,150 FC or 13,450 FH

**Table 2 to paragraphs (g)(2), (g)(3), and (i) of this AD – MRO 2 Post-Repair Life Limits**

Affected Airplane(s)	WV (series)	Compliance Time A or B, whichever occurs later (FC or FH, whichever occurs first, as defined by paragraph (g)(3) of this AD for post-repair life limits)
A340-211, A340-212, A340-213, A340-311, A340-312, and A340-313	WV00x	<b>A:</b> 25,000 FC or 100,000 FH <b>B:</b> 12 months after the effective date of this AD
A340-311, A340-312, and A340-313	WV02x and WV05x	<b>A:</b> 25,000 FC or 83,100 FH <b>B:</b> 12 months after the effective date of this AD, but not to exceed 25,000 FC or 100,000 FH
A330-301, A330-321, A330-322, A330-341, and A330-342	WV00x, WV01x, WV02x, and WV05x	<b>A:</b> 50,000 FC or 75,000 FH <b>B:</b> 12 months after the effective date of this AD
A330-201, A330-202, A330-203, A330-223, and A330-243	WV02x, WV05x (except WV058), and WV06x	<b>A:</b> 50,000 FC or 75,000 FH <b>B:</b> 12 months after the effective date of this AD
A330-201, A330-202, A330-203, A330-223, and A330-243	WV058	<b>A:</b> 50,000 FC or 70,950 FH <b>B:</b> 12 months after the effective date of this AD, but not to exceed 50,000 FC or 75,000 FH

**Table 3 to paragraphs (g)(2), (g)(3), and (i) of this AD – MRO 3 Post-Repair Life Limits**

Affected Airplane(s)	WV (series)	Compliance Time A or B, whichever occurs later (FC or FH, whichever occurs first, as defined by paragraph (g)(3) of this AD for post-repair life limits)
A340-211, A340-212, A340-213, A340-311, A340-312, and A340-313	WV00x	A: 25,000 FC or 100,000 FH B: 12 months after the effective date of this AD
A340-311, A340-312, and A340-313	WV02x and WV05x	A: 25,000 FC or 68,800 FH B: 12 months after the effective date of this AD, but not to exceed 25,000 FC or 100,000 FH
A330-301, A330-321, A330-322, A330-341, and A330-342	WV00x and WV01x	A: 50,000 FC or 73,400 FH B: 12 months after the effective date of this AD, but not to exceed 50,000 FC or 75,000 FH
A330-301, A330-321, A330-322, A330-341, and A330-342	WV02x and WV05x	A: 50,000 FC or 64,100 FH B: 12 months after the effective date of this AD, but not to exceed 50,000 FC or 75,000 FH
A330-201, A330-202, A330-203, A330-223, and A330-243	WV02x, WV05x (except WV058), and WV06x	A: 50 000 FC or 62,950 FH B: 12 months after the effective date of this AD, but not to exceed 50,000 FC or 75,000 FH
A330-201, A330-202, A330-203, A330-223, and A330-243	WV058	A: 50 000 FC or 59,350 FH B: 12 months after the effective date of this AD, but not to exceed 50,000 FC or 75,000 FH

**(h) Inspection to Determine Part Number and Serial Number**

Within 90 days after the effective date of this AD: Do an inspection of each MLG wheel axle (left-hand and right-hand sides) to determine the part number and serial number. A review of airplane delivery or maintenance records is acceptable to make this

determination, in lieu of inspecting a MLG wheel axle, provided those records can be relied upon for that purpose and the part number and serial number of the affected part can be positively identified from that review.

**(i) Replacement of Affected MLG Wheel Axles**

If any affected MLG wheel axle is found: Within the compliance time specified in table 1 to paragraphs (g)(2), (g)(3), and (i) of this AD, table 2 to paragraphs (g)(2), (g)(3), and (i) of this AD, or table 3 to paragraphs (g)(2), (g)(3), and (i) of this AD; replace each repaired MLG wheel axle with a serviceable MLG wheel axle, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-32-3282, Revision 03, dated October 24, 2017; or Airbus Service Bulletin A340-32-4311, Revision 03, dated October 24, 2017; as applicable. Regardless of the applicable post-repair life limits as specified in table 1 to paragraphs (g)(2), (g)(3), and (i) of this AD, table 2 to paragraphs (g)(2), (g)(3), and (i) of this AD, or table 3 to paragraphs (g)(2), (g)(3), and (i) of this AD, the life limits as specified in Airbus A330/A340 Airworthiness Limitation Section (ALS) Part 1 cannot be exceeded.

**(j) Parts Installation Limitation**

As of the effective date of this AD, any affected MLG wheel axle repaired by MRO 1, MRO 2, or MRO 3 may be installed on an airplane, provided the MLG wheel axle is a serviceable part as defined in paragraph (g)(2) of this AD.

**(k) Terminating Action for AD 2013-08-03**

Accomplishing the inspection and replacement required by paragraphs (h) and (i) of this AD terminates all requirements of AD 2013-08-03.

## **(l) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (m)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted



methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0150, dated July 16, 2018, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0807.

(2) For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3229.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAL, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 45 80; email: airworthiness.A330-A340@airbus.com; Internet: <http://www.airbus.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. Issued in Des Moines, Washington, on September 25, 2018.

John P. Piccola,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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